

Surveillance of Poliomyelitis in the United States, 1962-65

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A NATIONAL Poliomyelitis Surveillance Program was created by the Surgeon General of the Public Health Service in April 1955. Since that time, this program has served not only as a clearinghouse for the collection, analysis, and distribution of epidemiologic information on poliomyelitis in the United States, but also as a means of continuous surveillance of the disease and evaluation of the safety and efficacy of poliomyelitis vaccines. Since May 1, 1955, Poliomyelitis Surveillance Reports have been published regularly and distributed to those charged with responsibility for control

of the disease. In addition, annual summaries for the years 1955-57 and a 4-year review covering 1958 through 1961 have been published (1-4). This report summarizes the national experience with poliomyelitis from 1962 through 1965.

Background

The incidence of poliomyelitis in the United States for the period 1935-65 is shown in figure 1. Separate reporting of paralytic cases began in 1951. Before 1951, the estimate of the incidence of paralytic cases was based on an arbitrary assumption that half the reported cases were paralytic. Poliomyelitis rates increased irregularly during the 1940's and early 1950's. The highest incidence occurred during 1952-54, when the total case rates exceeded 20 per 100,000. Since 1955, the incidence has declined dramatically. In 1965 the total case rate was less than 0.1 per 100,000.

Table 1 shows officially reported cases of poliomyelitis from 1951 (when reporting by paralytic status was begun) to 1965. The reporting of paralytic status has improved markedly; in 1951 almost half of the cases were reported with paralytic status "unspecified." By 1959 only 1.1 percent was "unspecified." In contrast to the decided decline in total numbers of cases and case rates since 1955, the percentage of paralytic cases repre-

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sented no more than two-thirds of the total before 1959 but in 1962-65 it represented 85-90 percent. This increased percentage is partly due to more extensive epidemiologic and laboratory investigation of poliomyelitis cases in recent years, and the increasing tendency to seek confirmation of diagnosis before officially reporting cases as poliomyelitis. Infections with nonpoliomyelitis enteroviruses that cause aseptic meningitis, which may simulate non-paralytic poliomyelitis, are being diagnosed with increasing accuracy.

Source of Data

The National Communicable Disease Center receives weekly telegraphic reports from all 50 States and the District of Columbia, which record the numbers of both total and paralytic cases of poliomyelitis.

In addition, more detailed information on all reported cases is submitted to the Poliomyelitis Surveillance Unit by each State and the District of Columbia. A poliomyelitis surveillance case record is submitted at the time of initial reporting and again 60 or more days after onset of illness.

The preliminary case record includes such epidemiologic information as age, race, sex, date

of onset of illness, preliminary diagnosis, type of paralysis, and vaccination history. The 60-day followup form includes, in addition, appropriate virologic and serologic information, the clinical status of the patient, and the final diagnosis.

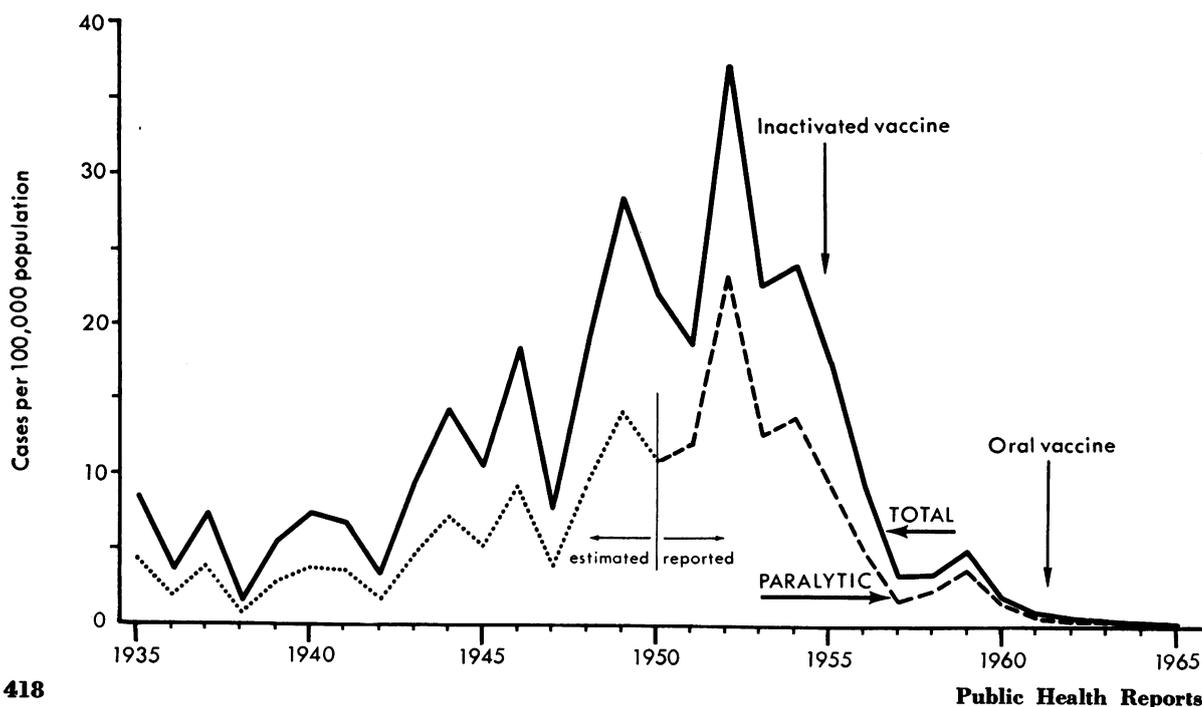
The clinical status is determined by the State epidemiologist according to severity of disease, as follows: (a) complete recovery (no residual paralysis), (b) minor involvement (definite weakness or involvement of one limb, or both conditions), (c) significant disability (more than one limb), (d) severe disability (confined to bed or wheelchair or requiring extensive bracing), or (e) fatality.

The final diagnosis may be one of five possibilities: (a) paralytic poliomyelitis with residual paralysis, (b) paralytic poliomyelitis with no residual paralysis, (c) aseptic meningitis syndrome (due to poliovirus, ECHO or Coxsackie viruses, or unknown etiology), (d) poliomyelitis, unspecified as to paralytic status, or (e) other diagnosis, not poliomyelitis or aseptic meningitis.

Cases Reported

The cases reported to the Poliomyelitis Surveillance Unit on individual case records are presented in table 2, and the final classification

Figure 1. Annual poliomyelitis incidence rates, United States, 1935-65



of these cases is shown in table 3. When no 60-day followup report was received, the preliminary diagnosis was retained.

Cases of paralytic poliomyelitis with residual paralysis have been considered the best continuing index of paralytic disease, and they form the basis of the subsequent presentation in this paper. These cases include (a) those with residual paralysis at 60 days and (b) preliminary diagnosis of paralytic poliomyelitis with no 60-day followup. The total thus represents the

best available paralytic poliomyelitis case count. This count has declined steadily from 5,472 cases in 1959 to 61 cases in 1965 (table 3).

Seasonal and Geographic Distribution

The seasonal incidence of paralytic poliomyelitis from 1961 through 1965 is presented in figure 2. The traditional increase in incidence during the summer and early autumn months occurred in 1961, 1962, and 1963, as in previous

Table 1. Reported cases of poliomyelitis, by paralytic status, United States, 1951-65

Year	Paralytic status			Total	Total case rate ¹	Percent	
	Paralytic	Nonparalytic	Unspecified			Unspecified	Paralytic ²
1951	10,037	5,470	12,879	28,386	18.5	45.4	64.7
1952	21,269	12,802	23,808	57,879	37.2	41.1	62.4
1953	15,648	12,144	7,800	35,592	22.5	21.9	56.3
1954	18,308	13,221	6,947	38,476	23.9	18.1	58.1
1955	13,850	12,453	2,682	28,985	17.6	9.3	52.7
1956	7,911	6,555	674	15,140	9.1	4.5	54.7
1957	2,499	2,826	160	5,484	3.2	2.9	46.9
1958	3,697	1,941	149	5,787	3.3	2.6	65.6
1959	6,289	2,045	91	8,425	4.8	1.1	75.5
1960	2,525	626	39	3,190	1.8	1.2	80.1
1961	988	305	19	1,312	.7	1.4	76.4
1962	762	139	9	910	.4	1.2	84.6
1963	396	52	1	449	.2	.2	88.4
1964	106	12	4	122	.1	3.3	89.8
1965	61	10	1	72	<.1	1.4	85.9

¹ Case rate per 100,000 population (Bureau of the Census midyear population estimates).

² Percent paralytic of those with paralytic status specified.

SOURCE: U.S. Communicable Disease Center: Annual Supplement to Morbidity and Mortality Weekly Report, vol. 9, No. 53, Oct. 30, 1961, and vol. 14, No. 53, Oct. 14, 1966.

Table 2. Individual poliomyelitis case records reported to Poliomyelitis Surveillance Unit, 1958-65

Year	Number States participating ¹	Total cases reported ²	Surveillance forms submitted		
			Preliminary	60-day followup	
				Number	Percent
1958	49	5,787	6,125	4,919	80.3
1959	50	8,425	8,635	7,523	87.1
1960	51	3,190	3,304	3,095	93.7
1961	51	1,312	1,356	1,284	94.7
1962	51	910	914	898	98.2
1963	51	449	437	425	97.3
1964	51	122	115	115	100.0
1965	51	72	72	69	95.8

¹ Includes District of Columbia.

² Telegraphic reports.

years. In 1964, however, the occurrence of cases was relatively uniform throughout the year and no seasonal peak was evident. In 1965 two-thirds of the paralytic cases occurred between May and September; however, no dramatic late summer peak was evident.

During the 4-year period, 1962-65, no large epidemics occurred compared with those which occurred in earlier years. (The largest outbreak occurred in Texas in 1962 when 174 paralytic cases were reported over a wide geographic area.) The location of the outbreaks (defined as those areas with six or more paralytic cases, of which at least four occurred within a 30-day period) of paralytic poliomyelitis during 1962 and 1963 is shown in figure 3; all were due to type I poliovirus. No outbreaks were recorded in 1964 or 1965. In 13 of the 16 outbreaks, mass oral vaccination campaigns were conducted in an effort to control the outbreaks. The number of cases reported from each of these outbreaks and the estimated number of doses of type I oral polio vaccine administered have been reported previously (5).

In 1964 and 1965 (fig. 4), the reported cases were widely scattered geographically. The 91 cases reported in 1964 were from 83 counties, and no more than 2 cases occurred in any one county in any month. The 61 reported cases in

1965 were similarly scattered; however, a total of 18 cases was reported from Texas during the course of the year.

Age and Vaccination History

During the 1940's and early 1950's, when the national incidence was rising, poliomyelitis occurred with increasing frequency in school-age children and young adults (6). Following the introduction of inactivated vaccine in 1955, the age distribution again became concentrated in children less than 5 years of age. This concentration of cases in unvaccinated preschool-age children, evident during the period 1958-61 (4), was also apparent during 1962-65. The age distribution of patients with paralytic poliomyelitis, by inactivated vaccination status for each year from 1962 through 1965, is shown in table 4. During this 4-year period, an average of 48 percent of paralytic cases were in preschool-age children. An average of 78 percent of all the patients had received less than three doses of inactivated vaccine, and 67 percent of these had received none. During this period, there was no evidence of any problems regarding the safety of inactivated polio vaccine.

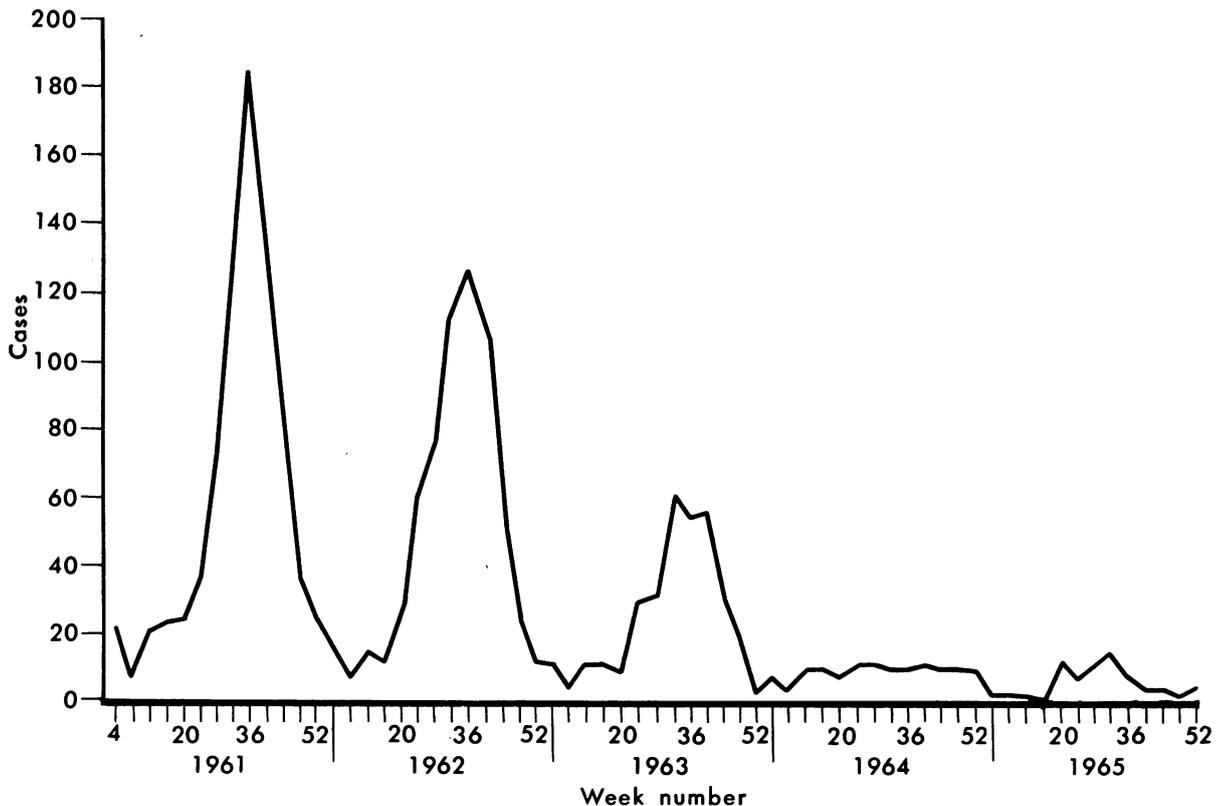
Oral live virus poliomyelitis vaccines were licensed in 1961 and 1962 for use in the United

Table 3. Cases reported to the Poliomyelitis Surveillance Unit on individual case records, by final and preliminary classification, 1958-65

Year	With 60-day followup reports				Total	Without 60-day followup reports			Total	Best available paralytic poliomyelitis count (1+5)
	Final classification					Preliminary classification				
	Paralytic, residual paralysis (1)	Paralytic, no residual paralysis (2)	Aseptic meningitis syndrome (3)	Other final diagnosis ¹ (4)		Paralytic poliomyelitis (5)	Non-paralytic poliomyelitis (6)	Unspecified poliomyelitis (7)		
1958	2,686	344	1,774	115	4,919	615	488	103	1,206	3,301
1959	4,783	748	1,883	109	7,523	689	352	71	1,112	5,472
1960	2,078	342	606	69	3,095	140	62	7	209	2,218
1961	778	136	342	28	1,284	51	15	6	72	829
1962	680	83	135	0	898	11	2	3	16	691
1963	324	45	56	0	425	12	0	0	12	336
1964	91	11	12	1	115	0	0	0	0	91
1965	58	3	8	0	69	3	0	0	0	61

¹ Other than poliomyelitis or aseptic meningitis.

Figure 2. Paralytic poliomyelitis cases, by date of onset, 1961-65



States. From the time of initial licensure through June 1964, 123 cases of paralytic poliomyelitis were reported to have occurred less than 30 days after the administration of the oral poliomyelitis vaccine. Of these 123 vaccine-associated cases, 36 occurred in epidemic areas following emergency vaccination programs. It is likely that most of these cases were in persons infected with naturally occurring poliovirus who were vaccinated during their incubation period. The remaining 87 cases were widely scattered and occurred in nonepidemic areas. An unusually high percentage of these cases was in adults. Paralytic disease associated with oral vaccines was the subject of an inquiry in July 1964 by a special committee of the Surgeon General and has been fully documented (5,7), including the oral vaccination history for all persons with paralytic poliomyelitis in 1962 and 1963 (5).

The cases occurring in 1964 and 1965 are presented by age groups of patients and oral poliomyelitis vaccination status in table 5. The

numbers of persons who developed paralytic poliomyelitis within 30 days after receiving oral polio vaccine are shown in italics. Of the 91 paralytic cases in 1964, 19 occurred within 30 days following the administration of oral poliomyelitis vaccine. Fifteen of the 19 cases were in persons aged 15 years or older, and constituted half of the 30 cases reported in persons 15 or older.

Excluding cases that occurred within 30 days following administration of oral poliomyelitis vaccine, a total of eight cases occurred among persons under 15 years of age who had previously received a primary series of oral poliomyelitis vaccine, either three doses of monovalent vaccine or two doses of trivalent vaccine. Of the eight patients, six had received three or more doses of inactivated vaccine in addition to the oral vaccine. Virus isolation was attempted for six patients, and two poliovirus isolates, both type I, were recovered.

In 1965, 53 of 61 patients (87 percent) had received no oral vaccine. Of the remaining

Figure 3. Outbreaks of paralytic poliomyelitis, United States, 1962 and 1963

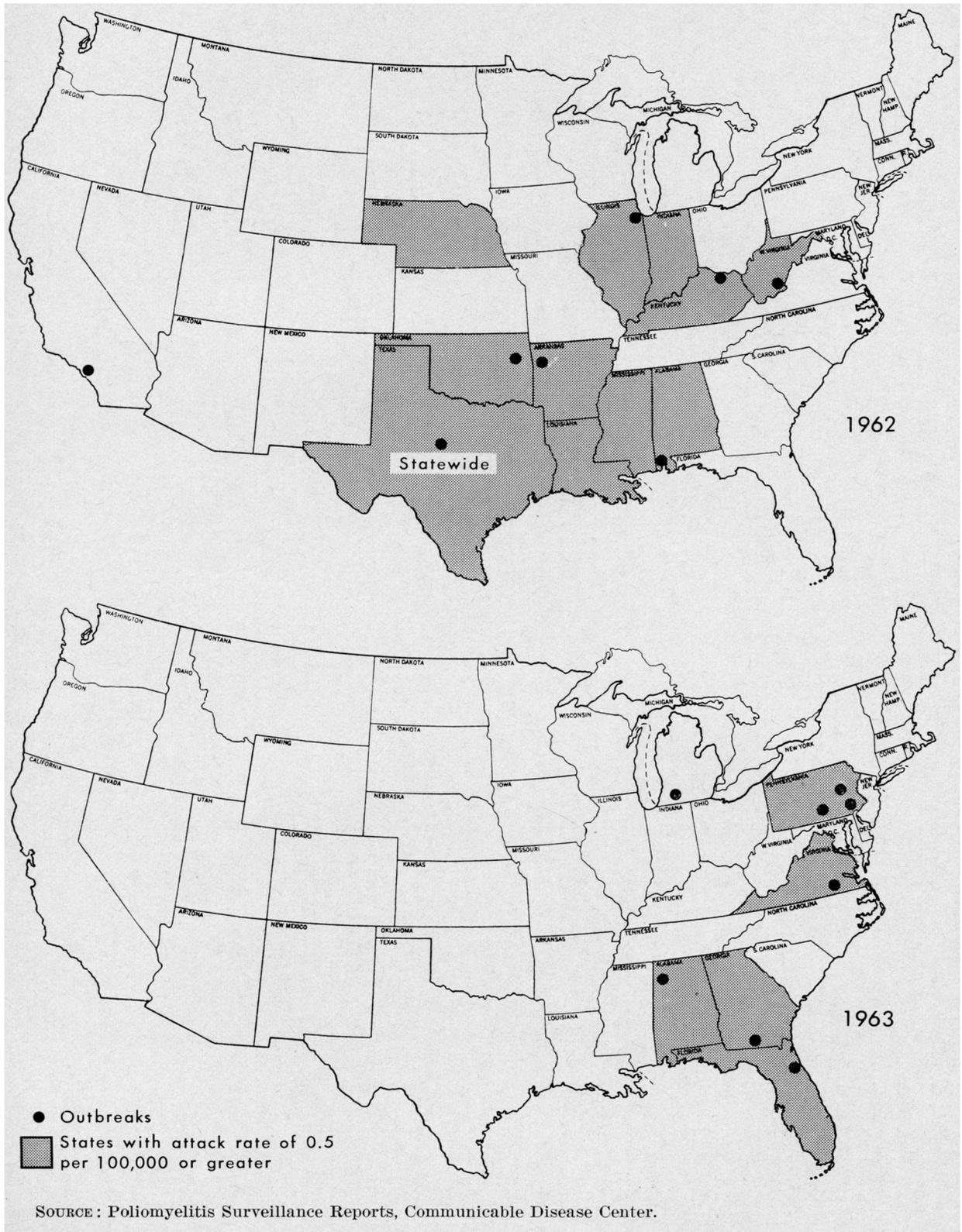
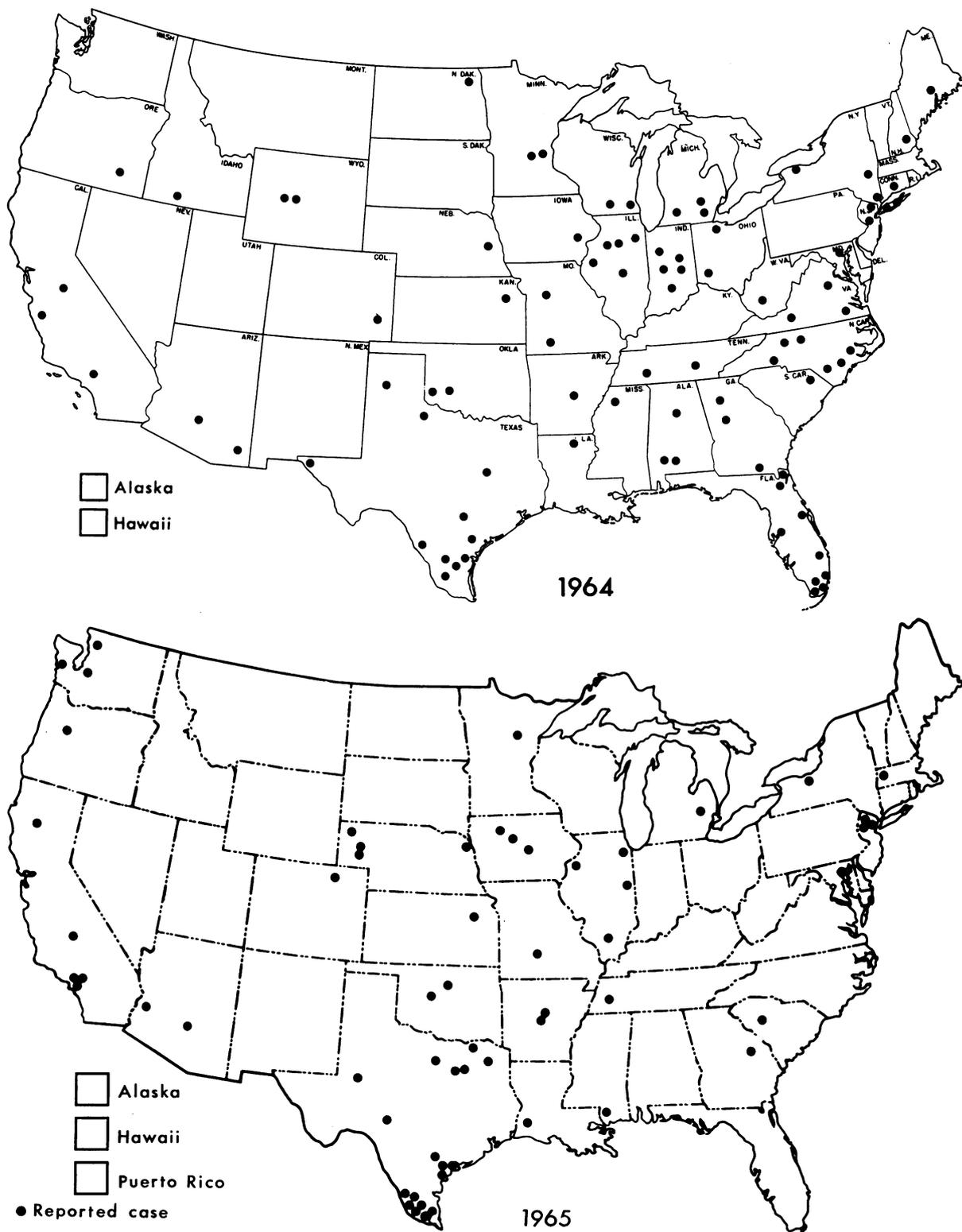


Figure 4. Geographic distribution of paralytic poliomyelitis in the United States, 1964 and 1965



SOURCE: Poliomyelitis Surveillance Unit, Communicable Disease Center.

eight, paralytic poliomyelitis developed in two children within 30 days after receiving the vaccine. No cases in adults occurred following oral poliomyelitis vaccine during the latter half of 1964 and 1965. This may be associated with the shift in emphasis in immunization programs following the Surgeon General's warning of an increased risk for adults (7).

Vaccine distribution figures suggest that most communitywide campaigns were conducted during 1962, 1963, and the first half of 1964. The estimated annual distribution of poliomyelitis vaccines from dates of licensure through 1965 is summarized in table 6.

A survey of the poliomyelitis vaccination

status of the U.S. population in September 1965, conducted by the Bureau of the Census in cooperation with the Communicable Disease Center, revealed that more than 60 percent of the school-age children had received three doses of oral poliomyelitis vaccine and approximately 50 percent of the preschool children (1 through 4 years of age) had had three doses.

The findings of the annual national immunization survey are shown in table 7 for 1962-65 (8). During this 4-year period, the population vaccinated with oral vaccine increased sharply from 1962 through 1964 and to a lesser degree in 1965. This reflects the decrease in the amount of vaccine distributed during the

Table 4. Paralytic poliomyelitis reported to Poliomyelitis Surveillance Unit, by age group and inactivated vaccination history, 1962-65

Age group (years)	Doses of inactivated vaccine						Percent of total cases	Number of deaths
	0	1-2	3	4 or more	Un-known	Total		
<i>1962</i>								
0-4.....	242	52	18	21	8	341	49.3	15
5-9.....	69	16	26	26	3	140	20.3	7
10-19.....	35	18	24	18	3	98	14.2	11
20-39.....	65	13	4	4	3	89	12.9	10
40+.....	19	2	0	1	1	23	3.3	4
Total.....	430	101	72	70	18	691	100.0	47
Percent.....	63.9	15.0	10.7	10.4	-----	100.0	-----	-----
<i>1963</i>								
0-4.....	117	24	14	8	7	170	50.6	8
5-9.....	25	10	10	14	2	61	18.2	4
10-19.....	28	8	10	6	1	53	15.8	3
20-39.....	27	3	7	4	2	43	12.8	6
40+.....	8	0	0	1	0	9	2.7	0
Total.....	205	45	41	33	12	336	100.0	21
Percent.....	63.3	13.9	12.7	10.2	-----	100.0	-----	-----
<i>1964</i>								
0-4.....	28	4	4	1	1	38	41.8	3
5-9.....	7	2	1	5	1	16	17.6	1
10-19.....	8	0	3	4	0	15	16.5	1
20-39.....	7	4	0	0	0	11	12.1	0
40+.....	8	0	1	1	1	11	12.1	2
Total.....	58	10	9	11	3	91	100.0	7
Percent.....	65.9	11.4	10.2	12.5	-----	100.0	-----	-----
<i>1965</i>								
0-4.....	26	1	4	0	0	31	50.8	1
5-9.....	6	0	0	4	0	10	16.4	1
10-19.....	4	1	3	1	0	9	14.8	1
20-39.....	6	0	0	1	0	7	11.5	2
40+.....	3	0	0	0	1	4	6.6	0
Total.....	45	2	7	6	1	61	100.0	5
Percent.....	75.0	3.3	11.7	10.0	-----	100.0	-----	-----

Table 5. Paralytic poliomyelitis reported to Poliomyelitis Surveillance Unit, by age group and oral vaccination history, 1964-65

Age group (years)	Doses of oral vaccine						Total cases
	None	Monovalent			Trivalent		
		1 type only	2 types	3 types	1 dose	2 doses	
<i>1964</i>							
0-4	29	4 1	1 1	2	2 1	0	38 3
5-9	9	1	2 1	2	2	0	16 1
10-19	7	3 3	0	5 1	0	0	15 4
20-39	7	1 1	2 2	0	1 1	0	11 4
40+	4	1 1	1 1	2 2	3 3	0	11 7
Total	56	10 6	6 5	11 3	8 5	0	91 19
<i>1965</i>							
0-4	28	0	1 1	0	2	0	31 1
5-9	5	1	1	2	0	1 1	10 1
10-19	9	0	0	0	0	0	9
20-39	7	0	0	0	0	0	7
40+	4	0	0	0	0	0	4
Total	53	1	2 1	2	2	1 1	61 2

NOTE: Numbers of persons who developed paralytic poliomyelitis within 30 days after receiving oral polio vaccine are shown in italics.

latter half of 1964 and 1965. During the same period the proportion of persons who reported having received three or more doses of inactivated poliomyelitis vaccine remained essentially stable among adults but showed a steady decrease in the younger age groups. Trends in the use of inactivated vaccine prior to 1962 have been documented (9,10).

Severity of Residual Paralysis

A final 60-day report on severity of paralysis was obtained on all but 43 (3.6 percent) of the 1,179 paralytic cases reported during the 4-year period (table 8). As in the previous 4-year period, 1958-61, the distribution of severity among the paralytic cases was consistent from year to year. The number of cases classified as paralytic poliomyelitis with minor involvement ranged from 20 to 26 percent of the total each year. Patients with significant disability contributed 43 to 53 percent of the year's total. Another 19 to 22 percent suffered severe disability, and fatalities ranged from 6.6 to 8.6 percent.

One-fourth of the patients suffered severe disability or death during this period in contrast

to one-third during 1958-61. The case-fatality ratio ranged from 6.6 percent to 8.6 percent, with a 4-year average of 7.0 percent. This case-fatality ratio is significantly lower than the ratio of 9.5 percent recorded for 1958-61 (Yates corrected chi-square test=6.86; $P=0.009$). However, 124 (12 percent) of the 1,136 patients with known severity during 1962-65 had received oral polio vaccine within 30 days before onset. Of the 124 patients, only 3 died, resulting in a case-fatality ratio of only 2.4 percent compared with 77 deaths among the remaining 1,012 patients, a case-fatality ratio of 7.6 percent (Yates corrected chi-square test=3.79; $P=0.05$). If the 1,012 nonvaccine-associated cases are compared with those in the previous 4 years, the difference between the case-fatality ratios, 7.6 percent compared with 9.5 percent, is not as great (Yates corrected chi-square test=3.53; $P=0.06$).

Poliovirus Isolations

During 1962 and 1963, fecal specimens from approximately 70 percent of the reported patients were submitted to laboratories for viral studies. Because of the small number of para-

lytic cases in 1964 and 1965, special efforts were made to obtain specimens for virus isolation from all patients. During 1964-65, specimens were submitted for viral studies for almost 85 percent of the patients. The number of specimens studied during 1958-65 and the results obtained are shown in table 9.

In 1962 and 1963, type I poliovirus was the most frequently isolated type, accounting for 74 and 81 percent of the totals. All outbreaks during this period were due to type I infection, although in 1962, 24 scattered type III isolates were also identified in the epidemic areas. In the nonoutbreak areas, type III accounted for approximately 35 percent of the laboratory-confirmed cases in 1962 and for 30 percent in 1963.

In 1964, virus was isolated from 51 of 77 fecal

specimens examined. Of these isolates, 24 (47 percent) were type III, 21 (41.2 percent) were type I, and 6 (11.9 percent) were type II. This contrasts with the distribution of isolates obtained during the period 1958-63 when type I isolates accounted for 60 to 89 percent of the total each year, and type III varied from 10 to 38 percent. This proportional increase in type III isolates reflects, in part, the lack of major type I outbreaks as well as isolations from cases associated with the administration of type III oral vaccine.

The absence of outbreaks was again evident in 1965, and only 50 percent of isolations were type I poliovirus. Six of the 11 type III isolates were from patients who had had onset of disease within 30 days after receiving trivalent

Table 6. Estimated annual distribution of poliomyelitis vaccines from dates of licensure through December 1965 (thousands of doses)

Year	Inactivated vaccine (April 1955)	Monovalent oral vaccine			Trivalent oral vaccine ¹ (June 1963)
		Type I (August 1961)	Type II (October 1961)	Type III (March 1962)	
1955	27,657				
1956	70,566				
1957	88,246				
1958	47,055				
1959	68,048				
1960	52,250				
1961	45,922	587	151		
1962	35,817	44,568	39,379	22,687	
1963	18,965	38,741	34,228	54,206	
1964	8,817	24,895	29,807	28,418	
1965	7,462	4,651	3,353	3,708	6,276

¹ Data for trivalent oral poliomyelitis vaccine available since September 1965 only.

Table 7. National immunization survey findings, 1962-65, poliomyelitis vaccination status

Age group (years)	Oral polio vaccine, percent reporting 3 doses				Inactivated polio vaccine, percent reporting 3 or more doses			
	1962	1963	1964	1965	1962	1963	1964	1965
1-4	5.7	28.7	46.8	48.6	72.6	67.7	60.9	49.6
5-9	5.7	33.6	56.4	61.7	85.8	84.3	80.9	75.6
10-14	5.2	34.0	57.7	62.9	86.2	85.2	82.6	78.7
15-19	4.1	28.2	49.8	56.9	79.2	78.8	77.7	75.4
20-29	3.7	21.4	38.4	(¹)	55.0	55.4	54.9	(¹)
30-39	4.3	23.1	41.9	(¹)	44.7	43.8	43.5	(¹)
40-49	3.8	19.8	37.4	(¹)	23.9	26.3	28.0	(¹)
1-49	4.6	26.4	46.2	(¹)	61.3	60.7	59.3	(¹)

¹ Data not available.

Table 8. Paralytic poliomyelitis, by severity of paralysis, 1962-65

Severity of paralysis	Number of cases					Percent of cases with known severity				
	1962	1963	1964	1965	Total	1962	1963	1964	1965	Total
Minor involvement.....	176	80	18	15	289	26.2	25.3	19.8	25.9	25.4
Significant disability.....	315	155	48	25	543	46.9	49.1	52.7	43.1	47.8
Severe disability.....	133	60	18	13	224	19.8	19.0	19.8	22.4	19.7
Fatality.....	47	21	7	5	80	7.0	6.6	7.7	8.6	7.0
Unknown.....	20	20	0	3	43	-----	-----	-----	-----	-----
Total.....	691	336	91	61	1,179	100.0	100.0	100.0	100.0	100.0

Table 9. Poliovirus isolations from specimens submitted for persons with paralytic cases, United States, 1958-65

Year	Number of cases		Percent of cases studied	Viruses identified				Percent of total identified		
	Best available paralytic count	Specimens submitted ¹		Type I	Type II	Type III	Unknown	Type I	Type II	Type III
1958.....	3,301	1,479	44.8	898	29	194	10	80.1	2.6	17.3
1959.....	5,472	2,775	50.7	1,881	10	228	23	88.8	.5	10.8
1960.....	2,218	1,072	48.3	603	1	219	2	73.3	.1	26.6
1961.....	829	481	58.0	231	6	145	0	60.5	1.6	37.9
1962.....	691	472	68.3	300	8	100	0	73.5	2.0	24.5
1963.....	336	242	72.0	160	6	31	0	81.2	3.0	15.7
1964.....	91	77	84.6	21	6	24	0	41.2	11.8	47.0
1965.....	61	50	83.3	² 19	8	² 11	0	50.0	21.1	28.9

¹ Includes all paralytic cases for which 1 or more fecal specimens were examined for virus isolation. State and local health department laboratories and laboratories in academic centers reported these results through State epidemiologists to the Poliomyelitis Surveillance Unit.

² Poliovirus type I and type III were isolated from the same fecal specimen of a patient from New York.

oral vaccine or within 60 days after contact with a person who had received trivalent oral vaccine.

Summary

From 1955 to 1965 the incidence of poliomyelitis in the United States declined so dramatically that the disease is no longer considered a major public health problem in this country. This decline coincides with the period of widespread usage of inactivated poliomyelitis vaccine, from 1955 to 1961. By 1961 less than 1,000 paralytic cases of poliomyelitis occurred in the United States. During that 6-year period the total poliomyelitis case rate declined from more than 20 per 100,000 to less than 1 per 100,000.

During the period covered by this report,

1962-65, the oral poliovirus vaccines were licensed and used on a large scale. The sharp decline in incidence continued throughout this period, though somewhat less dramatically, because the incidence was already quite low by 1962. In 1965 only 61 cases of paralytic poliomyelitis were reported in the United States.

No large epidemics occurred during 1962-65, and no outbreaks of any size occurred in 1963 or 1964. Most reported cases were in preschool children, the vast majority either unvaccinated or inadequately vaccinated.

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Public Health Service Staff Appointments

Stuart Henry Clarke has been appointed director of personnel of the Public Health Service. He is responsible for planning and directing the personnel management program of the Service, which is comprised of 35,000 employees in 500 areas throughout the world.

Mr. Clarke, a former deputy director of personnel of the National Aeronautics and Space Administration, came to the Service from the Manned Spacecraft Center, where he was personnel officer. His career began with the Department of the Army, at Aberdeen, Md., and he has worked with both civilian and military service personnel and pay systems.

Born in Stamford, Conn., Mr. Clarke received his baccalaureate degree from the University of Bridgeport. He also has completed several courses in personnel management, collective bargaining, and human relations.

Mr. Clarke is a member of the American Society for Public Administration, Society for Personnel Administration, Public Personnel Association, President's Advisory Committee

for Placement, University of Houston, and business-industry Government Advisory Council at Prairie View Agricultural and Mechanical College.

Assistant Surgeon General Joseph A. Gallagher has been named deputy director of the new Bureau of Health Manpower, Public Health Service.

During 1966 Dr. Gallagher served as chairman of the Surgeon General's Task Force on Health Manpower, which developed the framework of the Bureau to which he is assigned.

In 1962 Dr. Gallagher was detailed to the Peace Corps to serve as its medical director. Subsequently, he returned to the Service as deputy chief of the Division of Hospital and Medical Facilities.

A native of Denver, Dr. Gallagher was commissioned in the Public Health Service following his graduation from the University of Colorado School of Medicine. He is a member of the American Medical Association and the American Public Health Association.